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ABSTRACT

A study was conducted to determine the extent to which teachers and principals perceive that strategies and conditions to integrate academic, career, and technical education are present in their schools. The study was carried out in Virginia through a 56-statement questionnaire with High Schools That Work (HSTW) schools (schools that are part of an initiative to change the traditional education setting to one that is integrated and collaborative with the participation of all academic and career and technical education teachers). Respondents were asked to rate each item on how integrative conditions are present in their schools, using a five-point Likert-type scale. Results indicated that of the 56 items, teachers and principals rated 42 as neutral for integration and only 14 items as indication of curriculum integration present in their schools. In general, the principals were more aware of the presence of integration strategies or conditions because they have observed teachers throughout their schools and have performed summative evaluations, while some teachers may not be aware of the integration strategies or conditions present in their schools. The study concluded that since integrating academics and career and technical education is one strategy for raising student achievement and preparing students for the workplace, teachers and principals should make a conscious effort to integrate academic and career and technical education. (Contains 15 references.) (KC)

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The Presence of Strategies and Conditions for Integrating Academic and Career and Technical Education

Introduction

The challenge American students' face in the global economy and in preparation for further education is one of great struggle. A major concern for the educational system relates to the productivity of American students and the nation's competitiveness in the global economy (Lynch, 1996). Many Americans are concerned about the quality of education and the performance of students in comparison to students of other developed countries. The new federal legislation focusing on student achievement, critical reports of the public educational system, and the artificial distinction between academic and career and technical education, have combined to create an urgent need for the integration of academic and career and technical education (Finch & Crunkilton, 1999).

Integrating academics and career and technical education is viewed in many American public high schools as a way to solve the problems of preparing students for the global workplace and further education. In 1987, the Southern Regional Education Board created a high school initiative to improve the academic and career and technical education of students. This initiative, titled *High Schools That Work (HSTW)*, focuses on changing the traditional educational setting to one that is integrated and collaborative with the participation of all academic and career and technical education teachers. The *HSTW* program is an attempt on the part of educational leaders of SREB to improve both the academic and the career and technical education achievement of students.

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A study was conducted to determine the extent to which teachers and principals perceive strategies and/or conditions to integrate academic and career and technical education are present in their schools. Identifying whether integration strategies and/or conditions are present in schools will provide information to principals and educational leaders that can be used to evaluate integration activities in their schools. In addition, before evaluating the effectiveness of integration on student achievement, efforts should be made to identify the extent to which integration strategies and/or conditions exist in schools. Lastly, this study would provide valuable information to principals in that it would assist to identify areas of concerns that may hinder the integration process.

The Integration of Academic and Career/ Technical Education Survey (*IACTES*) was developed to identify the extent to which integration strategies and/or conditions are present in *HSTW* sites in Virginia. The content of the *IACTES* included 56 statements modified from qualitative studies that identified strategies that hindered and facilitated the integration of academic and career and technical education (Schmidt, 1992 a&b; Schmidt, Finch, & Faulkner, 1992 a&b). Four additional items were included to obtain demographic information. There were 60 items total on the *IACTES*.

Respondents were asked to rate each item using a 5-point Likert-type scale, "5" meaning strongly agree and "1"meaning strongly disagree that each item was present in their schools. Results indicate that of the 56 items, teachers and principals rated 42 as neutral (mean scores ranged from 2.61-3.50). In addition, teachers and principals together rated only 14 items as being present in their schools (mean scores ranged from 3.51-3.86). The results of the multivariate analysis of variance (MANOVA) indicated that academic and career and technical education teachers' perceptions did not differ, F (2,88)

=1.99, p >.05. The descriptive statistics revealed that academic teachers rated 38 out of the 56 strategies and/or conditions neutral (mean ranged from 2.59-3.50) and career and technical education teachers rated 41 out of the 56 strategies and/or conditions neutral (means ranged from 2.66-3.48). In examining the frequency table, the items that were rated neutral, a large percentage of the respondents rated the item either agree or disagree while only a small percentage actually rated the item neutral.

The MANOVA revealed a significant difference in the perceptions of teachers and principals, $F(2,120) = 4.75$, $p < .05$. The multivariate analysis of variance (MANOVA) procedure revealed no significant differences on perceptions based on school size or school location. However, there were significant differences of perceptions based on school type, $F(6,236) = 4.89$, $p < .05$. The post hoc test (Games Howell) revealed differences exist between comprehensive schools and each of the other school types (magnet schools, vocational centers, career academies) on the collaboration factor, $p < .05$.

Conclusions and Discussion

A conclusion that can be drawn based on the findings in this study is that the existence of integration strategies and/or conditions is minimal in the schools identified in this study. Only 14 of the 56 items were identified as being present in these schools and the other 42 items were rated neutral. In addition, teachers and principals do not have the same perceptions as to the degree to which integration strategies and/or conditions are present in their schools. It may be that principals are more aware of the presence of integration strategies and/or conditions because they have observed teachers throughout their schools and have performed summative evaluations, while some teachers may not

be aware of the integration strategies and/or conditions present in their schools. From the results of this study, it appears that teachers in comprehensive schools are doing less integration of the curriculum. The lack of integration of the curriculum in comprehensive schools may be a result of their focus on academic and college bound preparation and less on preparing students for the work environment through contextual learning. While the other school types (magnet schools, vocational centers, career academy) tend to focus on an integrated approach to learning.

Integrating academics and career and technical education is one alternative to raising student achievement and to prepare students for the workplace (Benson, 1989; Brown, 1998). Teachers and principals should make a conscious effort to integrate academic and career and technical education. Although the research identified strategies and conditions for successful integration, many teachers are finding integration hard to do and efforts to integrate academic and career and technical education are minimal in some schools. This study revealed the integration strategies and/or conditions that teachers and principals indicated were present in Virginia *High Schools That Work* sites. It is hoped that this study will provide teachers and principals with the insight to increase integration activities and to evaluate the effectiveness of their integration efforts. In addition, for principals and teachers who are having difficulty integrating academics and career and technical education, it is hoped that the information in this study will guide them in the identification and development of integration strategies and/or conditions in order to provide their students with integrated, hands-on, authentic learning experiences.

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